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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,024	12/24/2001	Huang-Ming Pan	INMEP0102US	2439
43076	7590	10/04/2005	EXAMINER DYKE, KERRI M	
MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR CLEVELAND, OH 44115-2191			ART UNIT 2667	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,024	Applicant(s) PAN, HUANG-MING	
	Examiner Kerri M. Dyke	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 2,6,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/25/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 2 elements 28, 40, and 42. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

1. Claims 6 and 8-9 are objected to because of the following informalities: The colon is missing before the beginning of each list. Appropriate correction is required.

2. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 provides the limitation that the load balancing proxy server is programmed to determine the identity of the proxy server with the lowest load. Claim 1 already states that the load balancing proxy server is configured to determine the identity of the

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proxy server with the lowest load. The term programmed is not patentably distinct from the term configured. Both convey the fact that the load balancing proxy server is equipped with all the parts and tools necessary to make the determination.

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1 and 15 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-2 of copending Application No. 10/036,001. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 5-10 and 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-7, 14, and 17 of

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compending Application No. 10/036,001. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to have only one VoIP client instead of two VoIP clients. It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma et al. (US 6,795,867).

8. In regards to claim 1, Ma et al. discloses a Voice-over-Internet Protocol (VoIP) system, comprising: a network including at least two VoIP proxy servers configured to allow voice data to be transmitted and received over the network; at least two VoIP clients operatively coupled to the network to transmit and receive voice data over the network; and a load balancing proxy server device configured to determine an identity of a VOIP proxy server with a lowest

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workload, and to provide the identity of the VoIP proxy server with the lowest workload to one of the at least two VoIP clients so that the one of the at least two VoIP clients can connect to the VoIP proxy server with the lowest workload in order to transmit and receive voice data in relation to another of the at least two VoIP clients. Figure 1 shows a network with multiple VoIP proxy servers and clients. The clients include the phones 112, 114, 116, and 118. The proxy servers are marked as gateways and included elements 104 and 106. It is well known to those in the art that gateways are also known to be proxy servers. The gatekeepers, 108 and 109, are equipped with load management units (LMU). Figure 4 is a flow diagram of the load balancing invention disclosed by Ma et al. The description of figure 4 begins on line 41 of column 8 and continues to line 8 of column 9. A proxy server is a device that allows clients indirect access to the rest of the network. A client connects to the proxy server, then requests a connection, file, or other resource available on a different server. The proxy provides the resource either by connecting to the specified server or by serving it from a cache. This is how the gatekeeper works, as disclosed by Ma et al. Therefore the gatekeepers of Ma et al. can be called load balancing proxy servers.

9. In regards to claim 2, Ma et al. discloses the VoIP system according to claim 1, wherein the load balancing proxy server is programmed to determine and identify the VoIP proxy server with the lowest workload of the at least two VoIP proxy servers upon receipt of a client request from the one of the at least two VoIP clients. Column 5 line 63 – column 6 line 12 discloses that the LMU determines which server to use in response to a query for call setup from one of the client endpoints. It is also disclosed there that the calling endpoint is provided with the identity

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of the server with the lowest workload, through which the requested call will be setup. Figure 4 and column 8 line 41- column 9 line 9 also provide an explanation of how the LMU works.

10. In regards to claim 3, Ma et al. discloses the VoIP system according to claim 1, wherein the load balancing proxy server generates a server request to each of the at least two VoIP proxy servers to determine and identify the VoIP proxy server with lowest workload and awaits a response therefrom. Column 9 lines 34-36 discloses that the LMU periodically requests workload data from the proxy servers to determine and identify the server with the lowest workload. It is inherent that load balancing server must wait for an answer from at least one of the proxy servers before continuing, otherwise it will not have any workload data to work with.

11. In regards to claim 6, Ma et al. discloses the VoIP system according to claim 1, wherein the network comprises one or more of a proprietary network, a network of leased facilities, the Internet, an Intranet, a wide-area network (WAN), a local-area network (LAN) and a virtual private network (VPN). Figure 1 element 124 discloses using a LAN or WAN. Figure 1 element 102 discloses using an IP network, which is well known in the art to include the Internet and intranets.

12. In regards to claim 7, Ma et al. discloses the VoIP system according to claim 1, further including the one of the at least two VOIP clients coupled to a gateway coupled to the network wherein the gateway controls access to the network. Figure 1 elements 104 and 106 are gateways.

13. In regards to claim 8, Ma et al. discloses the VoIP system according to claim 7, wherein the gateway comprises one or more of a VoIP gateway, a VoIP PTSN gateway, a media gateway, a router and an H.323 gateway. Column 5 lines 8-17 disclose the functions of the gateway,

which includes a VoIP PSTN gateway and a media gateway. H.320 and H.324 are protocols for video links, which are media. Therefore, the gateway is a media gateway. Figure 2 shows the use of routers and gateways. The system is also capable of handling H.323 calls, as disclosed in column 5 line 21.

14. In regards to claim 9, Ma et al. discloses the VoIP system according to claim 1, wherein the one of the at least two VoIP clients comprises one or more of an IP phone, a plain old telephone system (POTS) phone, a cell phone, a satellite phone, a microphone, a computer video camera with a microphone and a multi-media computer configured to transmit and receive voice data. . Figure 1 elements 112, 114, 116, 118, and 122 shows IP phones and computers as endpoints. The endpoints are described in more detail in column 3 line 50 – column 4 line 64.

15. In regards to claim 10, Ma et al. discloses a method for connecting at least two Voice-over-Internet Protocol (VoIP) clients to a VoIP system, wherein the VoIP system comprises a network of at least two VoIP proxy servers, a load balancing proxy server and a VoIP proxy server which has a lowest workload; comprising the steps of: (a) determining an identity of the VoIP proxy server which has the lowest workload of the at least two VOIP proxy servers; and (b) connecting of one of the at least two VoIP clients to the VoIP proxy server with the lowest workload in order to transmit and receive voice data in relation to another of the at least two VoIP clients. Figure 1 shows a network with multiple VoIP proxy servers and clients. The clients include the phones 112, 114, 116, and 118. The proxy servers are marked as gateways and included elements 104 and 106. It is well known to those in the art that gateways are also known to be proxy servers. The gatekeepers, 108 and 109, are equipped with load management units (LMU). Figure 4 is a flow diagram of the load balancing invention disclosed by Ma et al.

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The description of figure 4 begins on line 41 of column 8 and continues to line 8 of column 9. A proxy server is a device that allows clients indirect access to the rest of the network. A client connects to the proxy server, then requests a connection, file, or other resource available on a different server. The proxy provides the resource either by connecting to the specified server or by serving it from a cache. This is how the gatekeeper works, as disclosed by Ma et al.

Therefore the gatekeepers of Ma et al. can be called load balancing proxy servers.

16. In regards to claim 11, Ma et al. discloses the method of claim 10, further including the step of receiving a client request from the one of the at least two VoIP clients. Column 5 line 63 – column 6 line 12 discloses that the gatekeeper determines load balance in response to a request for call setup from a client.

17. In regards to claim 12, Ma et al. discloses the method of claim 10, further including the step of generating a request to each of the at least two VOIP proxy servers to determine and identify the VOIP proxy server with the lowest workload and awaiting a response therefrom. Column 9 lines 34-36 discloses that the LMU periodically requests workload data from the proxy servers to determine and identify the server with the lowest workload. It is inherent that load balancing server must wait for an answer from at least one of the proxy servers before continuing, otherwise it will not have any workload data to work with.

18. In regards to claim 14, Ma et al. discloses the method of claim 10, further including the step of providing the identity of the VOIP proxy server with the lowest workload to the one of the at least two VoIP clients in response to the client request from the one of the at least two VOIP clients. Column 6 lines 10-24 discloses that the LMU determines which proxy server has the lowest workload then directs the requesting client to connect through that proxy server. By

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directing the client it is providing the identity of the server with the lowest workload. Figure 4 and column 8 line 41 – column 9 line 9 also provides and explanation of how the LMU works.

19. In regards to claim 15, Ma et al. discloses a Voice-over-Internet Protocol (VoIP) system, comprising: a network including at least two VOIP proxy servers configured to allow voice data to be transmitted and received over the network; at least one VOIP client operatively coupled to the network to transmit and receive voice data over the network; and a load balancing proxy server device configured to determine an identity of a VoIP proxy server with the lowest workload, and to provide the identity of the VoIP proxy server with the lowest workload to the at least one VoIP client so that the at least one VoIP client can connect to the VoIP proxy server with the lowest workload in order to transmit and receive voice data. Figure 1 shows a network with multiple VoIP proxy servers and clients. The clients include the phones 112, 114, 116, and 118. The proxy servers are marked as gateways and included elements 104 and 106. It is well known to those in the art that gateways are also known to be proxy servers. The gatekeepers, 108 and 109, are equipped with load management units (LMU). Figure 4 is a flow diagram of the load balancing invention disclosed by Ma et al. The description of figure 4 begins on line 41 of column 8 and continues to line 8 of column 9. A proxy server is a device that allows clients indirect access to the rest of the network. A client connects to the proxy server, then requests a connection, file, or other resource available on a different server. The proxy provides the resource either by connecting to the specified server or by serving it from a cache. This is how the gatekeeper works, as disclosed by Ma et al. Therefore the gatekeepers of Ma et al. can be called load balancing proxy servers.

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20. In regards to claim 16, Ma et al. discloses the VOIP system according to claim 15, wherein the at least one VoIP client connects to the VOIP proxy server with the lowest workload to transmit and receive video data. Column 4 lines 43-44 disclose that the both audio and video data can be exchanged. The overall invention described by Ma et al. is a method for using the server with the lowest workload in order to achieve balanced network loading. It is therefore inherent that the server with the lowest workload would be chosen for transmission of data, regardless of whether it is audio or video.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 4-5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (US 6,795,867) in view of Okano et al. (US 6,725,253).

23. In regards to claims 4 and 13, Ma et al. discloses the VOIP system according to claims 1 and 10, but not wherein the load balancing proxy server upon receiving a response to the server request from one of the at least two VoIP proxy servers generates a cancel request to the other VoIP proxy servers.

Okano et al. discloses sending a cancel request in column 18 lines 58-63.

It would have been obvious to one of ordinary skill in the art to add the cancel request of Okano to the VoIP system of Ma et al. because the load balancing system may time-out or

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otherwise take too long if it has to wait for a response from all proxy servers, especially if the number of proxy servers is large or one or more of the servers fails.

24. In regards to claim 5, Ma et al. discloses the VOIP system according to claim 4, wherein the load balancing proxy server provides the identity of the VoIP proxy server with the lowest workload to the one of the at least two VOIP clients in response to the client request from the one of the at least two VoIP clients and the one of the at least two VoIP clients connects to the identified VoIP proxy server. Column 5 line 63 – column 6 line 12 discloses that the LMU determines which server to use in response to a query for call setup from one of the client endpoints. It is also disclosed there that the calling endpoint is provided with the identity of the server with the lowest workload, through which the requested call will be setup.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. O'Neil et al. (US 6,128,279) discloses a method for load balancing.
- b. Sitaraman et al. (US 6,442,165) discloses a method for load balancing in a VoIP network.
- c. Bhaskaran et al. (US 6,601,084) discloses a load balancing system for networks such as the Internet, an intranet, LAN, or WAN. The load balancing system uses continuous examination to determine which server has the lowest load.
- d. He et al. (US 6,671,259) discloses a WAN/LAN load balancing system.
- e. Havens (US 6,947,385) discloses a VoIP load balancing system.
- f. Trethewey (US 2003/0056002) discloses a VoIP load balancing system.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 8:10 am - 4:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2667 9/20/05